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Identifying Veterans with Opioid Use Disorder that Could Benefit from Referral for Evidence-Based Medication-Assisted Treatment

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Identifying Veterans with Opioid Use Disorder that Could Benefit from Referral for Evidence-Based Medication-Assisted Treatment

CAPSTONE PROJECT PAPER

A paper submitted in partial fulfillment of the
requirements for the degree of
Master of Public Health
in the
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By
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LIST OF ABBREVIATIONS

CDC: Centers Disease Control and Prevention
CPRS: Computerized Provider Record System
DSM-5: Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition
FDA: Food and Drug Administration
KASPER: Kentucky All Schedule Prescription Electronic Reporting
HIV: Human Immunodeficiency Virus
MAT: Medication-Assisted Treatment
OUD: Opioid Use Disorder
PDSI: Psychotropic Drug Safety Initiative
PTSD: Post-Traumatic Stress Disorder
VA: Veterans Affairs
VAMC: Veterans Affairs Medical Center
VHA: Veterans Health Administration

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EXECUTIVE SUMMARY

Current treatment guideline recommendations published by the American Society of Addiction Medicine for Opioid Use Disorder (OUD) include both psychotherapy and Medication-Assisted Treatment for optimal management of this chronic medical illness. Military veterans are at an increased risk for fatal outcomes related to opioid overdoses due to a higher prevalence of depression/Post-Traumatic Stress Disorder (PTSD) and self-medicated substance use compared to their civilian counterparts. Additionally, many have been diagnosed with OUD but are not being treated in accordance with current treatment recommendations.

In an effort to increase access to treatment and combat the opioid epidemic, the Lexington VA Medical Center Leestown Division is currently re-evaluating their OUD treatment model. Thorough electronic medical chart review of patients diagnosed with OUD was conducted to determine if current treatment recommendations were being implemented. As a primary objective to increase the number of patients with OUD on Medication-Assisted Treatment (MAT), pharmacist referral to primary care or mental health care providers for MAT was performed when intervention was deemed appropriate. A secondary outcome was to ensure all patients with OUD have an active Narcan prescription for emergency situations. Of the 191 veterans reviewed for this capstone project, 36% were not currently receiving treatment and were referred for MAT evaluation by a prescribing provider. Furthermore, 50 veterans with OUD were found to be without a Narcan kit prescription order. Instead of waiting for those at risk to seek treatment, this project highlights a novel approach in OUD treatment with early identification and secondary prevention.

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INTRODUCTION

At the national level, the Veteran's Health Administration (VHA) has created the Psychotropic Drug Safety Initiative (PDSI) to ensure appropriate and safe prescribing of psychotropic medications by identifying veterans who may benefit from a more thorough clinical review of their current treatment regimens. Targeted psychotropic classes of medication include anticholinergics, antidepressants, antipsychotics, anxiolytics, benzodiazepines/sedative hypnotics, and opioids. The Substance Use Disorder initiative is embedded within the opioid category and focuses more specifically on Opioid Use Disorder (OUD) and increasing the number of patients on evidence-based Medication Assisted Treatment (MAT).

Opioid Use Disorder is a specific diagnosis that falls under the general mental health diagnosis of Substance Use Disorder. Opioid use can include both prescription opioids (codeine, fentanyl, hydrocodone, morphine, and oxycodone) and illicit opioids, namely heroin. To be diagnosed with OUD, certain criteria must be met using the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5). This criteria include but is not limited to: taking opioids in a larger amount than prescribed or over a longer period than was intended; persistent desire or unsuccessful efforts to cut down or control opioid use; a great deal of time is spent obtaining the opioid or recovering from its effects; recurrent use resulting in failure to fulfill major role obligations at work, school, or home; tolerance, resulting in an increased amount used; withdrawal when opioid use is ceased; and continued use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of opioids. Full diagnostic criteria are shown in Appendix A.

It is important to also note the difference between physical and psychological opioid dependence. Patients that are on chronic opioid analgesic therapy will develop some level of

physical dependence to the medication and exhibit signs of withdrawal upon abrupt discontinuation. This does not mean the patient has OUD. Patients appropriately taking prescribed opioid pain medication do not meet criteria for an OUD diagnosis solely based on the notion that they may be physically dependent. As outlined by the DSM-5, OUD is diagnosed primarily off psychologic dependence (i.e., compulsively seeking opioids to prevent withdrawal, cravings, continued use despite social or interpersonal problems exacerbated by the effects of opioids, etc.).

Many implications can arise if OUD is not properly treated. These include, but are not limited to, risk of fatal overdose, risk of transmission of infectious diseases (hepatitis, Human Immunodeficiency Virus (HIV), bacterial endocarditis, etc.), risk of neonatal abstinence syndrome in pregnant females with OUD, potential loss of employment, potential legal problems, and potential financial problems.

As a medical condition, OUD must be treated as such if our nation is going to properly address and treat the current crisis. Treatment of OUD is still somewhat controversial as the medical community is still in the process of determining what treatment option produces the best long-term efficacy, but most addiction-focused societies recommend some form of evidence-based behavioral counseling and/or medication. FDA-approved Medication Assisted Treatment, or MAT, includes buprenorphine (Suboxone), methadone, or intramuscular, long-acting naltrexone (Vivitrol). These medications act by either blocking opioid receptors (naltrexone) in the brain or binding and fully or partially activating the opioid receptors (methadone, buprenorphine respectively) to reduce withdrawal symptoms (sweating, nausea/vomiting, anxiety, and cravings) that can occur with cessation of the opioid. MAT has been shown to reduce drug-related criminal behaviors, prevent withdrawal and cravings, reduce risk of infectious disease transmission (hepatitis, HIV, endocarditis), and allow the patient to gain and maintain meaningful employment¹.

Additionally, in situations where the patient refuses to be treated (with either counseling and/or MAT), harm reduction measures should be in place to prevent unintentional overdose or the spread of infectious diseases². Fast-acting, intranasal naloxone (Narcan) kits should be provided to each and every patient diagnosed with OUD for emergency situations and implementation of needle exchange programs in the community should be considered.

Realizing that veterans are at an increased risk for OUD and fatal outcomes³, the VA has implemented many treatment options for their patients including offering MAT, individual and group psychotherapies, inpatient detoxification, dual substance abuse and PTSD treatment programs, and outpatient residential substance abuse treatment programs. In Kentucky especially, access to these services seems to be the biggest challenge for some veterans as most of these specialized treatment options are not offered at VA community-based outpatient clinics and only at VA Medical Centers (Lexington or Louisville). To combat this issue, the Lexington VA Healthcare System is attempting to increase the number of primary care providers that can legally prescribe buprenorphine, educating primary care providers about the role of intramuscular naltrexone use (which doesn't require additional training for prescribing), and encouraging primary care providers to refer patients with OUD to VA mental health clinics when they are uncomfortable with treating the patient.

The main objective of this capstone project was to increase the number of patients diagnosed with OUD on evidence-based MAT within the Lexington, Kentucky Veterans Affairs Healthcare System. Pharmacists were employed to perform retrospective clinical chart review to determine if current treatment recommendations were being incorporated with veterans diagnosed with OUD, and when appropriate, make a referral to their primary care or mental healthcare

prescriber for further evaluation for MAT was performed. A secondary objective was to ensure all patients diagnosed with OUD have an active prescription for a naloxone rescue kit.

REVIEW OF THE LITERATURE

Our nation is currently in a public health crisis related to the opioid epidemic. According to data from the Centers for Disease Control and Prevention (CDC), in 1999 the age-adjusted number of deaths in the United States due to opioid analgesics (not including heroin) was 1.4 per 100,000 residents⁴. By 2015, this number had sharply increased to 7.0 deaths per 100,000 residents⁴. In comparison, the age-adjusted number of deaths related to heroin alone had increased from 0.7 per 100,000 residents in 1999 to 4.1 per 100,000 in 2015⁴. In 2016, more than 64,000 deaths were related to overdoses, making it the leading cause of death for Americans under 50 years old⁵. This was more deaths than guns or car accidents accounted for that year and is on pace to kill at a faster rate than the HIV epidemic did at its peak⁵.

Kentucky alone has seen an almost 32% increase in the number of drug overdose deaths since 2012 according to the 2016 Overdose Fatality Report conducted by the Kentucky Office of Drug Control Policy, with 34% of these deaths related to heroin (up from 28% in 2015)⁶. Fayette County ranked second in the state for both the population-adjusted number of heroin-related overdose deaths and the population-adjusted number of fentanyl-related overdose deaths with 48 and 59 deaths respectively⁶. In addition, Kentucky ranked fifth in the nation in 2016 for the age-adjusted rate of drug overdose deaths at 33.5 per 100,000⁷. Similar to national statistics, Kentucky citizens aged 35-44 years old represented the largest demographic in these overdose fatalities⁶.

To put our state's untreated OUD risk into perspective, in 2016 the CDC named 220 counties that were most vulnerable to the rapid dissemination of HIV and hepatitis C if the viruses

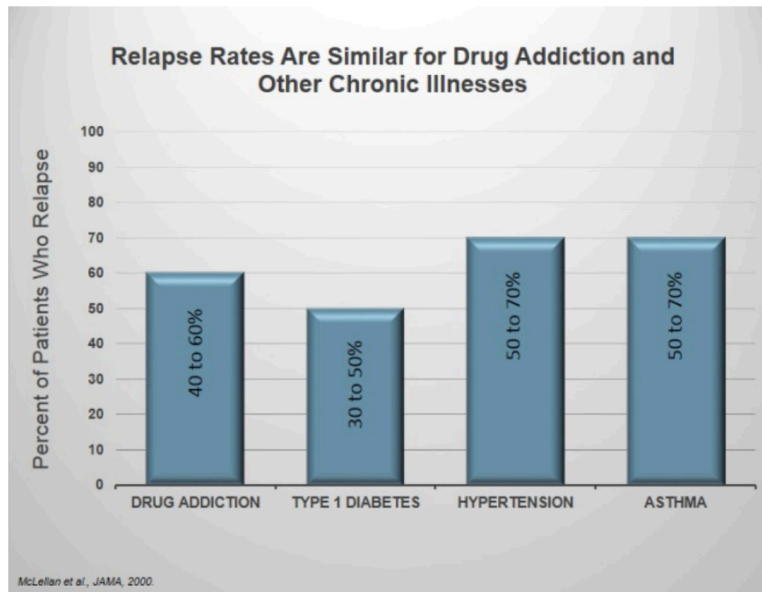
were introduced to the community². Kentucky had 54 counties listed, which represents 45% of our state and nearly one quarter of the total counties identified². This report also notes the absence or minimal availability of harm-reduction strategies (addiction treatment and rehabilitation, MAT, and needle-exchange programs) in rural counties to be the biggest barrier to the prevention of the spread of these diseases².

Many factors have played into the development of this crisis, including over-prescribing of prescription opioid analgesic medications and the increased accessibility of illicit opioids. According to the CDC, in 2013 prescribers wrote nearly 250 million opioid prescriptions, which was enough for every American adult to have their own bottle⁸, even though the amount of pain reported by Americans has remained essentially the same⁹. Increased dose and duration of opioid therapy has also been shown to increase the risk of developing Opioid Use Disorder. The lifetime prevalence of OUD in patients receiving long-term opioid therapy is estimated to be 41%, with high-dose, chronic therapy increasing the risk 122-fold⁸. There is also evidence to suggest that the increase in heroin use over the past decade is due to patients transitioning to a more potent and readily available option as their tolerance to prescription opioids has increased¹⁰.

OUD is a chronic medical condition and has a clinical course that reflects that of other chronic medical conditions: periods of exacerbation and remission, but the underlying vulnerability never disappears¹¹. Over time there are changes in the motivation and reward pathways in the brain as OUD develops¹¹. This, again like other chronic medical conditions, makes complete control of symptoms difficult since patient adherence to treatment is often incomplete. The American Society of Addiction Medicine has estimated relapse rates for OUD are similar to relapse rates for hypertension, type II diabetes, and asthma, as shown in Figure 1 below. Main

predictors of low adherence to treatment and relapse include low socioeconomic status, comorbid psychiatric conditions, and lack of family or social support¹².

Figure 1. Relapse Rates Are Similar for Drug Addiction and Other Chronic Illnesses.¹²



Further, most treatment approaches are structured as though OUD is an acute illness, which is partially due to insurance coverage/restriction to rapid detoxification or acute stabilization strategies with little to no continuation of care¹².

Within the Veterans Health Administration (VHA) as a whole, there was an increase in the number of opioid prescriptions from 17% to 24% from 2001 to 2009¹³. Interestingly, those with a mental health diagnosis (specifically Post-Traumatic Stress Disorder (PTSD)) were more likely to receive an opioid prescription for pain compared to those without this diagnosis¹⁴. Further, veterans with PTSD were more likely to receive higher doses of opioids, receive two or more opioid prescriptions concurrently, and receive a sedative hypnotic concurrently compared to those without a mental health diagnosis¹⁴, representing an increased risk for accidental overdose and

other adverse outcomes related to opioid use. Importantly, there have been studies that show a co-occurrence between mental health and substance use disorder diagnoses, citing self-medication as the main factor linking the two¹⁵. In 2016 there were 8.2 million adults diagnosed with both a substance use disorder and a mental illness, but only 6.9% received treatment for both diagnoses^{15*}. Interestingly, 51.9% did not receive treatment for either condition¹⁵. Military veterans encompass the largest cohort afflicted by mental health disorders, with one study citing the rate of major depression being five times higher among active-duty Army soldiers compared to civilians and the rate of PTSD being fifteen times higher compared to their civilian counterparts¹⁶. It is evident that military veterans are at the highest risk for substance use disorders when taking into account this co-occurrence of mental illness and substance use.

Studies on the effectiveness of MAT has been promising. All three FDA-approved medications (buprenorphine, methadone, and naltrexone) have shown to improve retention rates to psychotherapy treatment while reducing illicit opioid use, with buprenorphine and naltrexone requiring higher doses to be more effective^{17,18,19}. While it is just as effective as buprenorphine, long-acting injectable naltrexone is often more difficult to initiate due to the route of administration and the requirement to be completely abstinent from opioids for one week prior to induction¹⁹. The use of MAT increases retention rates for psychotherapy to allow the patient to develop the skills necessary for continued sobriety in “the real world” and the combination of MAT and psychotherapy has been shown to be more effective than either component alone¹.

METHODS

Study Design

The design of this capstone project mirrored that of an observational cross-sectional study. The Psychotropic Drug Safety Initiative was designed to pull patient names from the VHA electronic health record that meet at least one criterion of interest and categorize these patients into sub-lists by targeted medication or diagnosis. The Opioid Use Disorder dashboard identified patients diagnosed with OUD and was utilized for this project. It was the pharmacist's role to first determine if the patient was appropriately diagnosed with OUD, and to then clinically decide if the veteran is an appropriate candidate for MAT based on medication or disease-state interactions/contraindications. An assessment of the patient's prescription list was also evaluated for an active Narcan kit (dispensed at least once within the past calendar year). A note titled "MAT Review" (Appendix B) was annotated in the electronic health record for each patient identified on the dashboard, whether referral for treatment was made or not. All veterans that are categorized as appropriate for referral were also sent a letter in the mail highlighting treatment options available at the Lexington VAMC in the event the veteran was not able to be reached via telephone.

Those that are referred for treatment also had either their primary care physician, mental health provider, social worker, or other applicable practitioner alerted via the chart note to be in touch with the patient to discuss treatment or referral to treatment options, depending on the authority of the person contacting the patient. The electronic system that the VA uses forces any alerted person to acknowledge the note and take appropriate action. The decision upon which practitioner to alert was based on who the patient had most recently and consistently been in contact with. For example, some veterans are more consistent with meeting a social worker than their primary care provider, so the social worker will be flagged to contact the patient to discuss

referral options. If the patient is interested in treatment, the social worker can then place a consult for treatment with an addiction psychiatrist or primary care provider (depending on past involvement with the mental health clinic or comfort level of the patient). All patients that are deemed inappropriate for evaluation for MAT will have the note indicated with the reasoning why and require no flagging for further follow-up for MAT at this time.

Study Population

The study population included all patients treated within the Lexington VA Healthcare System within the past year (January 2017-December 2017). On an outpatient basis, this system geographically covers veterans primarily from the eastern part of the state, with Lexington being the dividing line. The Cooper Drive Medical Center, which is part of the Lexington VA Healthcare System, is similar to other acute care facilities in that it sees any veteran that requires acute treatment.

Inclusion Criteria

All veterans identified on the OUD dashboard were included for clinical review. The OUD dashboard included a list of all veterans diagnosed with OUD or opioid dependence (per the electronic health record; Computerized Provider Record System: CPRS) seen at least once within the Lexington, Kentucky VA Healthcare System from January 2017 through December 2017. Outpatient appointments did not have to be related to OUD and all disciplines were included. Emergency room visits/inpatient stays were also included as a visit within the VA system. No other inclusion criteria were used.

Exclusion Criteria

Excluded patients for review were those that were not identified on the OUD dashboard, and thus those without a diagnosis of OUD. Veterans with both a diagnosis of OUD and with an active prescription for either Suboxone or Vivitrol prescribed by a VA provider were excluded from the OUD dashboard. The Lexington VAMC does not have a methadone clinic so those participating in a community-based methadone clinic were not excluded from the OUD dashboard as this information would not readily available from the medication list.

Data Collection Tools

This project utilized the online, real-time Psychotropic Drug Safety Initiative, Opioid Use Disorder dashboard, which included a list of veterans diagnosed with OUD and their last four digits of their social security number for proper identification. The electronic health record the VA system uses is the Computerized Provider Record System (CPRS) and was utilized for chart review and note placement. Data collected from each patient identified on the OUD dashboard was then entered into an Excel sheet for recordkeeping.

Additionally, the Kentucky All Schedule Prescription Electronic Reporting (KASPER) system was also useful in determining recommendations for or against MAT. A KASPER report shows the pharmacist (and other healthcare providers) any controlled medication filled at any pharmacy across the state. This is important because buprenorphine is a controlled medication and KASPER can easily identify veterans currently receiving MAT from an outside clinic.

Data and Variables

Data collected from each identified veteran included: age, gender, current illicit opioid use, active opioid prescription, active benzodiazepine prescription, and Narcan kit status. Age was documented as a numerical value, while the other categories were categorical. Answers for current illicit opioid use was either yes, no, or unknown; active opioid and benzodiazepine prescription answers along with Narcan kit status were either yes or no. Gender was only identified if the patient was female due to the historical nature of the military being predominantly male. Additional notes about past treatment or other pertinent information related to OUD classification and treatment considerations were included in a separate column.

Data Analysis

Categorical variables were expressed as frequencies and percentages, while the only discrete variable (age) was expressed as a mean with standard deviation. Many factors go into consideration when determining which patients should be referred for MAT (primary outcome). Assessing the patient's current illicit opioid use plus their current medication list were the main determining factors, but other clinical rationale is further described in the following two sections.

Recommendations For MAT

Veterans that should be recommended for treatment are those that have admitted to illicit use/abuse of prescription or illicit opioids, those with positive urine drug screens (and without an opioid prescription to explain), and those that have been treated for opioid withdrawal symptoms. When there is uncertainty of the patient's usage or if they have not followed-up with any healthcare provider for an extended period of time, the patient was treated as appropriate for MAT referral

and flagged for further review. This was to try to ensure all veterans that potentially need treatment are provided the opportunity.

Recommendations against MAT

Veterans that would not be recommended for MAT would be those already being treated with FDA-approved therapies (either within or outside of the VA system), have transferred their care to another VA healthcare system, are being treated with opioids for compelling medical conditions, are in sustained remission, are currently incarcerated, have contraindications to treatment (either drug or disease-based reasoning), and those that have recently and/or historically refused treatment with medication.

CPRS Chart Note

Once chart review of the patient was conducted, a permanent chart note was entered regardless of referral status. The note was set up as a check-boxed template where all boxes that pertained to the veteran were checked to be included in the final documented note. The result of chart review (either support for against OUD diagnosis and referral for MAT intervention), intervention, and treating provider follow-up options to be included in the final note are shown in Appendix B. CPRS makes each and every provider that is alerted to a note acknowledge, take appropriate action, and document the action.

RESULTS

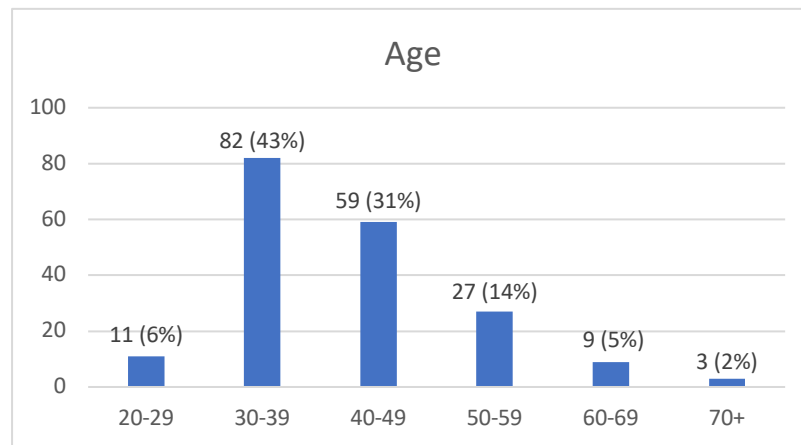
A total of 597 veterans were identified within the past year with having at least one encounter related to OUD or a diagnosis of OUD documented. Of these 597 patients, 191 patients

were included for this capstone project. Results are shown below in Table 1. Within these 191 veterans, 69 were classified as being appropriate for MAT referral, representing 36.12% of the cohort. Three patients, or 2%, were female with one currently pregnant at the time of chart review. No further intervention was required for 39 veterans (20%) due to their OUD being in remission. Of those with diagnosed OUD, 50 were without an active Narcan kit prescription on their medication list. Upon further investigation of these 191 veterans, it was found that 28 of the 69 patients referred for MAT had previously been treated with some form or combination of treatments in the past. There were 18 veterans currently being treated at outside, community-based Suboxone or methadone clinics (verified through KASPER report if treatment with Suboxone) and required their medication lists to be updated. The spread of ages for all 191 veterans is shown as a bar graph in Figure 1 below. The average age was found to be 41.7 years (+/- 10.4 years).

Table 1: Categorical Results Expressed as Means and Percentages

Results	
MAT Recommended	69 (36.%)
Narcan Kit Needed	50 (26%)
OUD in Remission	39 (20%)
Previous MAT Treatment	28 (15%)
Non-VA MAT	18 (9%)
	191

Figure 1: Age Distribution of Veterans Diagnosed with OUD Seen at Least Once Within the Lexington VA Healthcare System in 2017



DISCUSSION AND RECOMMENDATIONS

Of the patients reviewed, 69 veterans with diagnosed OUD that were not currently being treated with evidence-based medication therapy and at risk for becoming a fatal statistic. This meant 69 veterans had their opioid use acknowledged and diagnosed as being problematic but failed to be offered treatment that has clinically shown to help obtain and maintain sobriety. Recommending MAT for these patients potentially represents 69 veteran lives saved.

Within the 69 patients identified as being appropriate for MAT, there were 28 that had previously been involved in treatment before whether this was with MAT, inpatient detoxification, residential treatment, and/or psychotherapy. Given 40% had previously attempted treatment, this alone highlights the chronicity of OUD and high risk for relapse.

Due to the social stigma, a common current treatment option for OUD frequently includes short inpatient detoxification with little to no follow-up after discharge. A recent study published by Nunes, et. al. found that opioid use relapse rates were lower in patients that received long-acting

intramuscular Vivitrol following inpatient detoxification compared to patients that did not receive MAT upon discharge²⁰. While the effects of this study were only modest at the six-month follow-up (compared to the one-month follow-up), it at least shows that MAT is a viable treatment option for patients with OUD to reduce the rate of relapse. Based on results from similar studies, the Lexington VAMC is currently in the process of restructuring their inpatient detoxification treatments to include induction of MAT upon discharge to give veterans the best chance at abstaining from illicit opioid use post-discharge. This novel treatment approach would address the continuity of care issue and help the veteran with withdrawal symptoms and cravings as coping mechanisms are learned through psychotherapy. Until this approach is completely deployed, other methods to treat the patient are required, which is where this project falls into place. Pharmacists were able to assist in bridging the gap between diagnosis and treatment by reaching out to these high-risk patients and offering treatment instead of waiting for the patient to seek help.

Treating OUD requires a multi-disciplinary approach, with pharmacists being the medication experts. A clinical pharmacist's training focuses on evaluating already diagnosed patients to determine if appropriate evidence-based treatment is being prescribed, and to intervene when it is not. In larger healthcare systems, approaches similar to this project can be implemented to increase access to OUD treatment and provide a more holistic approach to treating the entire patient from a primary care prospective.

On the contrary, this might be more difficult for smaller, primarily outpatient systems due to limited pharmacist staffing in these clinics. Pharmacists, however, are highly accessible in the community through pharmacies, especially in rural areas. To combat the opioid epidemic, pharmacists in the state of Kentucky have very recently worked to successfully amend the law regarding board authorized protocols to included treatment of OUD with evidence-based medicine

following recommendations from the American Society of Addiction Medicine. This means pharmacists can, under a written protocol in collaboration with an authorizing practitioner, provide non-controlled MAT (Vivitrol or oral naltrexone) to patients seeking treatment without a prescription order. Utilizing professionals that are trained to identify OUD as well as when a patient is lacking appropriate treatment not only physically increases access to MAT but can also increase the number of patients being treated for their chronic disease, again closing this gap between diagnosis and treatment.

Additionally, 50 patients with diagnosed OUD and currently using opioids were without an active Narcan kit prescription order. OUD is a chronic medical illness and not providing these patients with a Narcan kit is similar to not providing a patient with asthma a rescue inhaler, a patient with type I diabetes a glucagon kit, a patient with anaphylaxis an EpiPen, and so forth. Naloxone is that essential in saving lives, and these veterans will have been at a disservice if they are not provided with emergent treatment. Further, pharmacists within community-based pharmacies in Kentucky are also able to provide a Narcan kit to any person requesting one without a prescription order from a prescriber, provided the pharmacy has a protocol in place. This again highlights the role pharmacists are taking to increase access for patients with OUD to ensure they are being properly treated with current professional recommendations.

Identification and diagnosis of opioid use disorder is not a barrier to treatment, but rather access to treatment as identified within this project. As this project found, many veterans are being diagnosed with OUD but are not being offered evidence-based MAT or accessing it in order to abstain from opioid use. Pharmacists within the Lexington VAMC were able to assist in closing these treatment disparity gaps by referring veterans to appropriate providers for treatment to be initiated. The role of the pharmacist within this project can also be extrapolated to the community

setting to again close the gap between OUD diagnosis and treatment. From a public health perspective, this project highlights two essential public health services: diagnose and investigate health problems and health hazards in the community, and link people to needed personal health services and ensure the provision of health care when otherwise unavailable. This project identified 69 veterans as candidates for MAT, which represents a potential 69 veterans appropriately treated for their diagnosed OUD.

LIMITATIONS

Cross-sectional studies with descriptive analyses rank lower on the hierarchy of evidence and is thus the project design was the biggest limitation. Further, there was limited data collected when conducting chart review of the patients. For example, a more specific breakdown of previous treatment options utilized or duration of diagnosis could have been interesting to look at. Another limitation is the generalizability of both the study population and the VA Medical Center. The veteran and the civilian populations are not similar for many reasons, with prevalence rates for mental illnesses, especially, being drastically different between the two populations. Additionally, the VA System has the ability to treat and view records from both inpatient and outpatient settings. While there are larger healthcare systems across the state and country, most are only inpatient or outpatient with little communication between the two disciplines. The ability to review both simultaneously was an advantage to the project.

FUTURE DIRECTIONS

Continuity of care continues to be a big issue when looking at OUD treatment. It is during periods of sobriety that patients with OUD are at the highest risk for overdose¹ and postponing

MAT treatment for post-discharge follow-up could be causing more harm than intended. Based on involvement with this project and review of current literature, it appears as though initiating MAT upon discharge from acute detoxification may provide a more holistic approach to treatment. With all of this, though, would increase the need for long-term treatment efficacy studies. It is still unknown how effective treatment is after being utilized for an appropriate period of time and then discontinued.

Further, OUD is a chronic illness and requires the same attention (as opposed to stigmatization) as other chronic conditions from a primary care prospective. Getting primary care physicians on board and building their confidence to treat OUD is required, along with encouraging providers to obtain credentials to prescribe buprenorphine. This, along with pharmacists getting more involved as mentioned in the discussion section, would also solve some of the issues with access to treatment.

*As of March 29, 2018, three veterans were in the process of initiating or newly started on buprenorphine therapy through the Lexington VAMC. This was solely due to the action taken from MAT chart notes.

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APPENDICES

A. DSM-5 Criteria for OUD

DSM-5 Criteria for Opioid Use Disorder

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[DSM-5 Criteria for Opioid Use Disorder \[1\]](#)

Description: The following are the DSM-5 diagnostic criteria for Opioid Use Disorder

1. A problematic pattern of opioid use leading to clinically significant impairment or distress, as manifested by at least two of the following, occurring within a 12-month period:

- Opioids are often taken in larger amounts or over a longer period than was intended.
 - There is a persistent desire or unsuccessful efforts to cut down or control opioid use.
 - A great deal of time is spent in activities necessary to obtain the opioid, use the opioid, or recover from its effects.
 - Craving, or a strong desire or urge to use opioids.
 - Recurrent opioid use resulting in a failure to fulfill major role obligations at work, school, or home.
 - Continued opioid use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of opioids.
 - Important social, occupational, or recreational activities are given up or reduced because of opioid use.
 - Recurrent opioid use in situations in which it is physically hazardous.
 - Continued opioid use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance.
 - Tolerance, as defined by either of the following:
 - A need for markedly increased amounts of opioids to achieve intoxication or desired effect.
 - A markedly diminished effect with continued use of the same amount of an opioid. (Note: This criterion is not considered to be met for those taking opioids solely under appropriate medical supervision.)
 - Withdrawal, as manifested by either of the following:
 - The characteristic opioid withdrawal syndrome (refer to Criteria A and B of the criteria set for opioid withdrawal).
 - Opioids (or a closely related substance) are taken to relieve or avoid withdrawal symptoms. (Note: This criterion is not considered to be met for those individuals taking opioids solely under appropriate medical supervision.)
- Specify if:
- In early remission (3 months of no criteria being met (with the exception of cravings) or sustained remission (12 months or longer (with the exception of cravings).
 - On maintenance therapy
 - In a controlled environment (where access to opioids is restricted).

See the DSM-5 manual for details on specifications.

Specify current severity:

- 305.50 (F11.10) Mild: Presence of 2–3 symptoms.

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DSM-5 Criteria for Opioid Use Disorder

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- 304.00 (F11.20) Moderate: Presence of 4–5 symptoms.
- 304.00 (F11.20) Severe: Presence of 6 or more symptoms.

See the DSM-5 manual for details on specifications and how to code when there are other disorders.

(Reprinted with permission from APA. *Diagnostic and Statistical Manual of Mental Disorders* 2000 and updated to: American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.

Links:

[1] <https://www.buppractice.com/node/1514>

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B. MAT Chart Note

Veteran's chart was reviewed as part of a comprehensive care plan and per report generated by VA Psychotropic Drug Safety Initiative (PDSI) /SAIL (SUD16) for assessment of veterans identified with opioid use disorder and whom are currently not receiving MAT (e.g. buprenorphine/naloxone; naltrexone IM). Chart reviews are conducted to ensure accuracy of diagnosis and assess for referral options. Additionally, upon a clinical chart review, veterans identified to have no past/active OUD diagnosis may have their medical record corrected.

PDSI Metric for Review: Opioid use disorder w/o medication assisted treatment

Current OUD chart diagnosis (Encounter/Problem List):
Opioid dependence, uncomplicated

Result of Chart Review:

Reviewed documentation does support a diagnosis of OUD requiring consideration of MAT intervention:

Current MAT regimen: N/A

Most recent UDS results: No data available

Has Active Naloxone Kit? No

Intervention:

Veteran has upcoming appointment with MH during which referral to MAT treatment will be discussed. Alerting outpatient provider, if not myself, to this note for discussion.

Veteran with no upcoming appointment with MH but has previously been involved in MH services. Alerting assigned MH nurse to this note who will call and discuss referral options with patient via script provided. MH Nurse to addend this note when call completed with results.

Veteran is not involved with MH but is currently seen in the pain clinic. Alerting pain clinic prescribers regarding this issue for follow-up and consideration of referral for MAT.

Veteran has never been involved with MH. Alerting PCP of record to this note and will send education materials to PCP to present to patient at his next visit.

Veteran is currently prescribed Community Care-MAT
Community Care-MAT

Based on chart review, veteran appears to be inappropriate for MAT due to one of the following reasons:

Currently using opioids for compelling medical indication

Appears to have moved outside of our catchment area

Currently in remission

Currently in hospice/palliative care treatment

Veteran with OUD and no Naloxone prescription. Alerting PCP and MH provider for OEND.

Veteran requires further assessment and interview before OUD diagnosis can be confirmed and subsequent eligibility for MAT determined. Alerting treating provider for clarification and assessment for MAT (if indicated).

Letter to be sent to Veteran explaining diagnosis and referral options.

Time invested: 20 minutes

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Responding/Responsible Treating Provider: Please respond with an addendum to this note once veteran has been contacted/counselled. Please report outcome of correspondence by reporting one of the following options:

- *IM naltrexone ordered
- *IM naltrexone referral to prescribing clinic placed
- *Buprenorphine/naloxone ordered
- *Buprenorphine/naloxone referral to prescribing clinic placed
- *Community Care to Opioid Treatment Program initiated for methadone or buprenorphine/naloxone
- *Veteran refused MAT services
- *After further interview, determined that veteran does not have a current diagnosis of OUD. The historical diagnosis has been removed.
- *Veteran receiving MAT from non-VA source, medication list has been updated.
- *Veteran inappropriate for MAT due to the following reasons: